

AMENDMENTS TO THE DRAWINGS:

Four replacement drawing sheets are attached including Figures 2, 3, 4a, 4b, 4c and 9. The four replacement drawing sheets replace all prior drawing sheets of figures including Figures 2, 3, 4a, 4b, 4c or 9. Figures 2, 3, 4a, 4b, 4c and 9 are amended to include cross-hatching on the cross section of the spool valve 21.

Figures 2, 3 and 4a are amended to replace the reference characters "21e" and "21f" with --21e1--, --21e2--, --21f1-- and --21f2--, respectively.

REMARKS

Favorable reconsideration of the above-identified application is requested in view of the amendments made herein and the following remarks.

Claim 3 is canceled. Claims 1, 2 and 4-8 are pending, with Claims 1 and 6-8 being independent.

On page 2 of the Official Action some issues are raised with respect to the drawings. One issue has to do with cross-hatching in the spool valve 21. Accordingly, Figures 2, 3, 4a, 4b, 4c and 9 are amended to include that cross-hatching. A second point is made regarding "what is depicted on the inner right side of the spool adjacent the hash mark in Figures 3, 4a, 4b and 4c." Applicant does not understand what the Examiner is taking issue with and requests that the Examiner either elaborate on that statement, or telephone the undersigned to provide clarification. It is hoped that perhaps the cross-hatching added in the Replacement Drawing sheets will address the Examiner's concerns regarding the right side of the spool.

On the bottom half of page 2 of the Official Action, the Examiner points out that the reference characters 21e and 21f represent two different parts. The reference characters 21e and 21f at issue in Figures 2, 3 and 4a are amended to be --21e1--, --21e2--, --21f1-- and --21f2--, respectively.

On page 3 of the Official Action some issues are raised regarding the specification. The specification is amended as suggested by the Examiner, thereby addressing those issues.

Claim 8 is objected to for inadvertently including "p." Accordingly, "p" is deleted thereby addressing that issue.

In the originally filed drawings, the illustrated embodiments of the pressure control device include a conduit labeled as FB. At the end of the first paragraph ending on page 6 of the originally filed application, Applicants state, in connection with Figure 3, that: "A solenoid (not shown), a spring 120 and a hydraulic pressure controls physical relationship between the spool valve 21 and the valve body." Upon review of Figure 3 in the present application, and in view of the corresponding description in the specification, it is clear that the "hydraulic pressure" controlling the physical relationship between the spool valve 21 and the valve body comprises: 1) a hydraulic pressure from a conduit between the solenoid valve 85 and 2) a hydraulic pressure from the conduit FB (feedback) that is fluidly connected to the supply port 20c. To clarify the original disclosure, the specification is amended to expand upon the description of "hydraulic pressure" that controls the position of the spool valve 21. Also, the claims are amended to recite that subject matter.

Claim 1 now defines a hydraulic pressure control device that has a cylindrical valve body. A line port is provided on the valve body and supplied with a hydraulic fluid. A supply port is provided on the valve body and supplies the hydraulic fluid. A spool valve is disposed in the valve body and is slidable along an inner surface of the valve body along an axis. A linear solenoid valve regulates hydraulic pressure in a first conduit. The hydraulic pressure in the first conduit provides force against the spool valve in a first direction along the axis. A feedback conduit fluidly connects to the supply port. Hydraulic pressure in the feedback conduit provides a force against the spool valve in a second direction that is opposite to the first direction. The hydraulic pressure in the first conduit and the hydraulic pressure in the feedback conduit together contribute to an overall force on the spool valve that controls the

physical relationship between the spool valve and the valve body. At least one land portion is provided at the spool valve and is slidable along the inner surface of the valve body. At least one recess is provided at an edge of the land portion of the spool valve. A cross-sectional opening area is open to an inlet port between the recess and the inner surface of the valve body continuously changes in sliding direction of the spool valve. A cross-sectional opening area of the recess is formed to have a proportional relationship between flow quantity of the hydraulic fluid and moving distance of the spool valve.

Similar amendments are made to Claims 6-8.

Claims 1-4 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,556,155 to McWilliams et al., hereinafter *McWilliams*.

McWilliams discloses a control valve that is for steering a vehicle. Steering is done by way of hydraulic pressure that is communicated through slots in a spool valve to a hydraulic steering motor. Figure 1 shows the steering device and includes pressure lines 36 and 38 that are connected to a drawing jack 10. In operation, the steering wheel is turned to cause movement of a valve 22 to the right so that fluid under pressure in the central recess 30 is directed through grooves 54 and recess 32 to the head end of the jack 10 to cause steering.

Claim 1 is allowable over *McWilliams* because *McWilliams* does not disclose at least a linear solenoid valve or a feedback conduit, in combination with the other claimed features in Claim 1.

Claims 2 and 4 are allowable at least by virtue of their dependence from allowable independent Claim 1.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *McWilliams*. The rejection of Claim 5 does not remedy the deficiencies of the rejection of Claim 1, from which Claim 5 depends. Therefore, Claim 5 is allowable for at least the same reasons.

Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,981,159 to Christensen et al., hereinafter *Christensen*.

Claim 6 is amended and now recites, among other features, a linear solenoid valve that regulates hydraulic fluid pressure in a first conduit. The hydraulic pressure in the first conduit provides force against the spool valve in a first direction along an axis. A feedback conduit fluidly connects to a supply port. The hydraulic pressure in the feedback conduit acts on the spool valve and provides a force against the spool valve in a second direction that is opposite to the first direction.

Christensen does not disclose at least a feedback conduit in combination with the other claimed features in Claim 6. For at least that reason, the rejection of Claim 6 should be withdrawn.

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,819,192 to Wakahara et al., hereinafter *Wakahara*, in view of *McWilliams*.

Claim 7 is allowable because it now recites, among other features, a linear solenoid valve that regulates hydraulic fluid pressure in a first conduit. The hydraulic pressure in the first conduit provides force against the spool valve in a first direction along an axis. A feedback conduit fluidly connects to a supply port. The hydraulic pressure in the feedback conduit acts on the spool valve and provides a force against the spool valve in a second direction that is opposite to the first direction.

Neither *Wakahara* nor *McWilliams*, alone or in combination, disclose at least a feedback conduit in combination with the other claimed features in Claim 7. For at least that reason, the rejection of Claim 7 should be withdrawn.

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Wakahara* in view of *Christensen*.

Claim 8 recites, among other features, a linear solenoid valve that regulates hydraulic fluid pressure in a first conduit. Hydraulic pressure in the first conduit provides force against a spool valve in a first direction along an axis. A feedback conduit fluidly connects to a supply port. Hydraulic pressure in the feedback conduit acts on the spool valve and provides a force against the spool valve in a second direction that is opposite to the first direction.

Neither *Wakahara* nor *Christensen* disclose at least a feedback conduit in combination with the other claimed features in Claim 8. For at least that reason, the rejection of Claim 8 should be withdrawn.

For the reasons stated above, it is requested that all the rejections and objections be withdrawn and that this application be allowed in a timely manner.

Should any questions arise in connection with this application, or should the Examiner feel that a teleconference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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